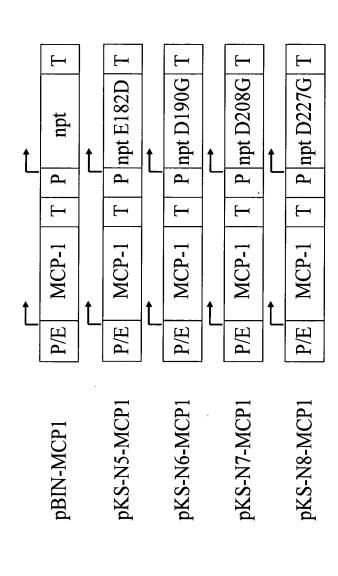
\square npt dhfr Ь Ь I \sqsubseteq \square dhfr GFP GFP npt IRES IRES Ь Ь Τ (mcs) P/E (mcs) (mcs) P/E (mcs) P/E(P/E pBING pBIDG pBID pBIN

Figure 1

Figure 2A



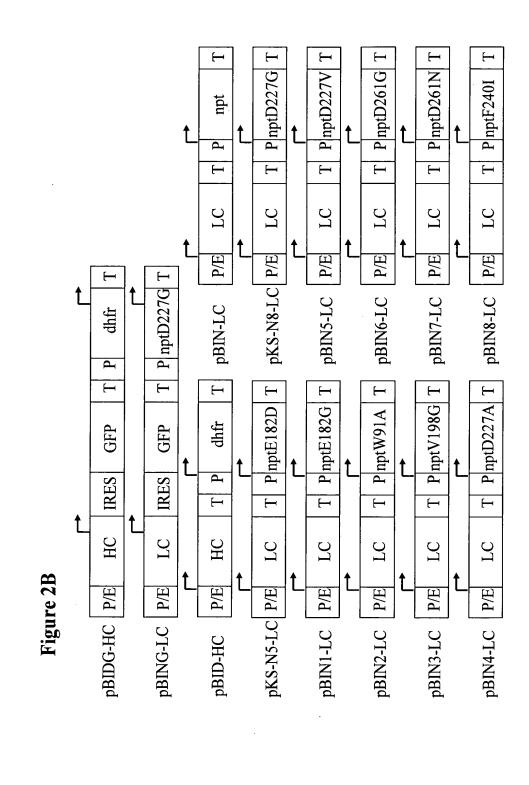


Figure 3

5'-gagctattccagaagtagtgaggaggcttt.....GCG GGA AGG GAC TGG CTG TTA TTG GGC GAA.....GCC GAA CTG TTC GCC AGG CTC AAG GCG AGC ATG
3'-ctcgataaggtcttcatcatcactcctcgaaaa.....CGG CCT CCG CTG ACC GAC GAT AAC CCG CTT.....CGG CTT GAC AAG CGG TCC GAG TTC CGC TCG TAC Ala Glu Leu Phe Ala Arg Leu Lys Ala Ser Met Ala Gly Arg Asp Trp Leu Leu Gly Glu GC W91Afor

Pro Asp Gly Glu Asp Leu Val Val Thr His Gly Asp Ala Cys Leu Pro Asn Ile Met Val Glu Asn Gly Arg Phe Ser Gly Phe Ile Asp Cys Gly Arg Leu

ÇŢĠ GAC G V198Gfor c D190Grev D190Gfor G E182Gfor A E182Drev T E182Dfor

Ala Asp Arg Tyr Gln Asp Ile Ala Leu Ala Thr Arg Asp Ile Ala Glu Glu Leu Gly Gly Glu Trp Ala Asp Arg Phe Leu Val Leu Tyr Gly Ile Ala

A F2401for C/T/G D227Afor/D227Vfor/D227Gfor

Phe Tyr Arg Leu Leu Asp Glu Phe Phe Stop

...AAG ATA G<u>GG GAA CTG CTC AAG AAG ACT cgc....gttcgctgcgggttggacggtag</u>t....gaaa<u>actaaatattccctaaaacggc</u>taa-5'
Neorev5 ...TTC TAT CGC CTT CTT GAC GAG TTC TTC TGA gcg....caagcgacgcccaacctgccatca....cttttgatttataagggattttgccgatt-3' G D261Gfor c D261Grev

AAC GAC => GGC; Asp227Val: GAT => GTT; Asp227Ala: GAT => GCT TGG => CCG; Glu182Gly: GAG => GGT; Glu182Asp: GAG => GAT; Asp190Gly: GAT => ۸ Phe240Ile: TTC => ATC; Asp261Gly: GAC => GGC; Asp261Asn: GAC Val198Gly: GTG => GGG; Asp208Gly: Asp227Gly: GAT => GGT; Trp91Ala:

Figure 4

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Motif 1	LVLYGIAAPD
240	ELGGEWADRE
227	IALATRĎIAE
208	GR <u>FSGFIĎCG RLGVADRYQD IALATRĎIAE Motif 2₂₆₁</u>
	201

Figure 5

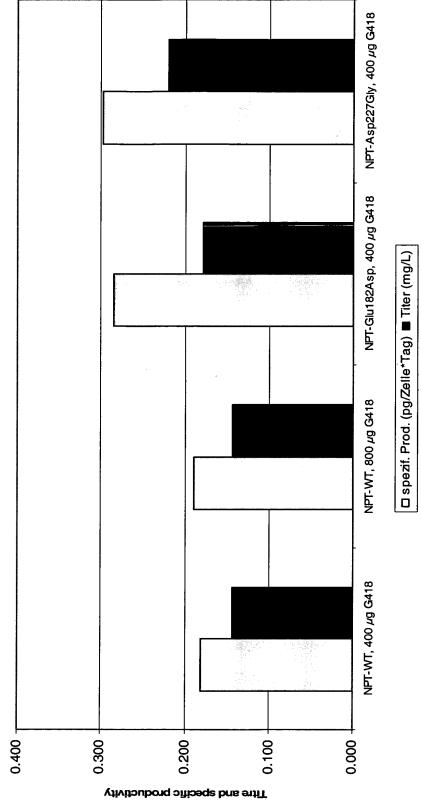


Figure 6A

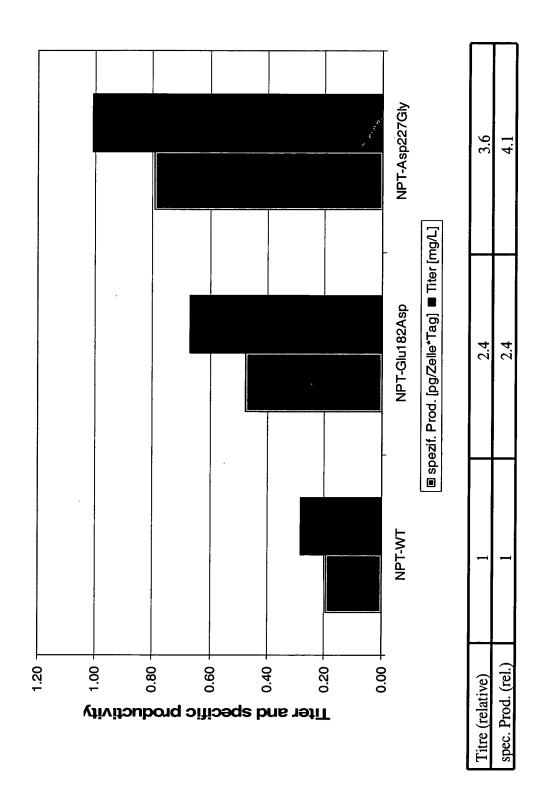


Figure 6B

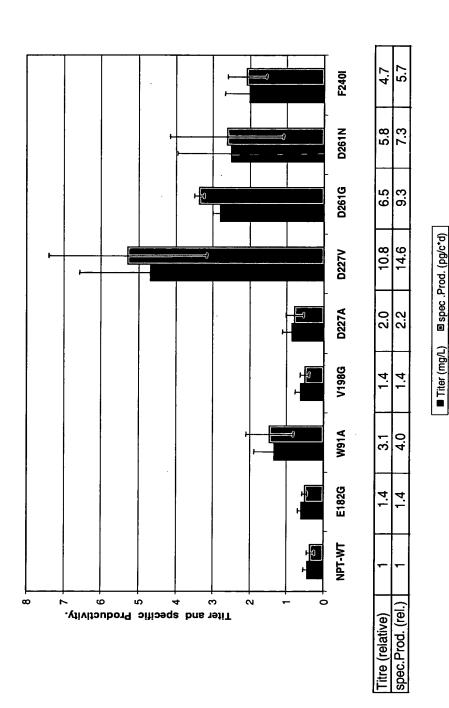
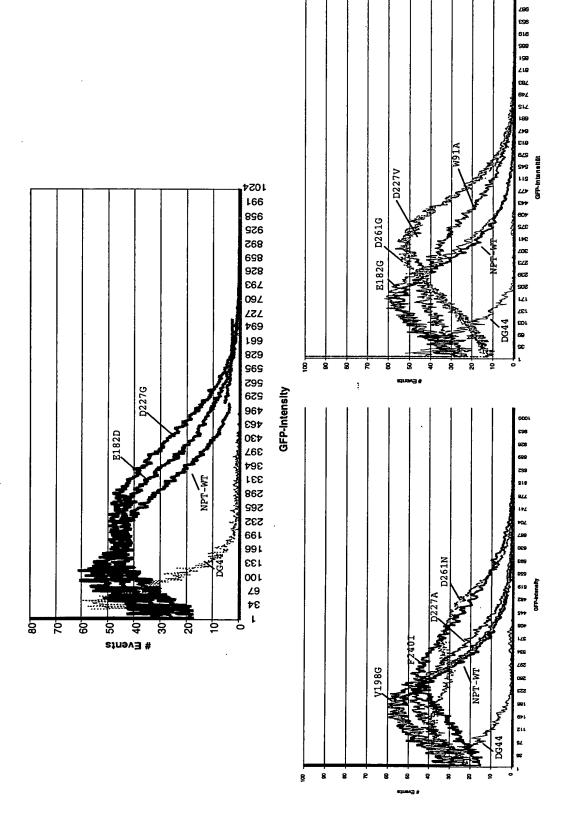


Figure 7



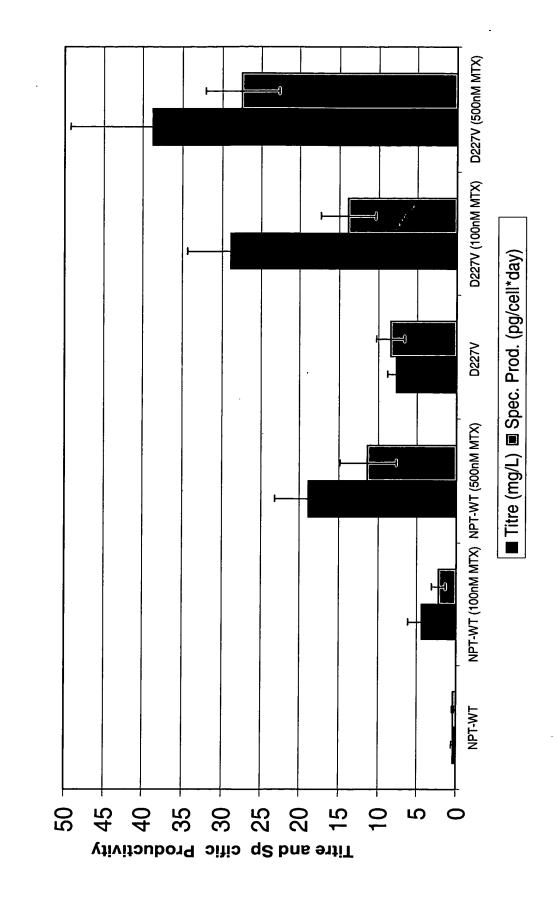


Figure 8

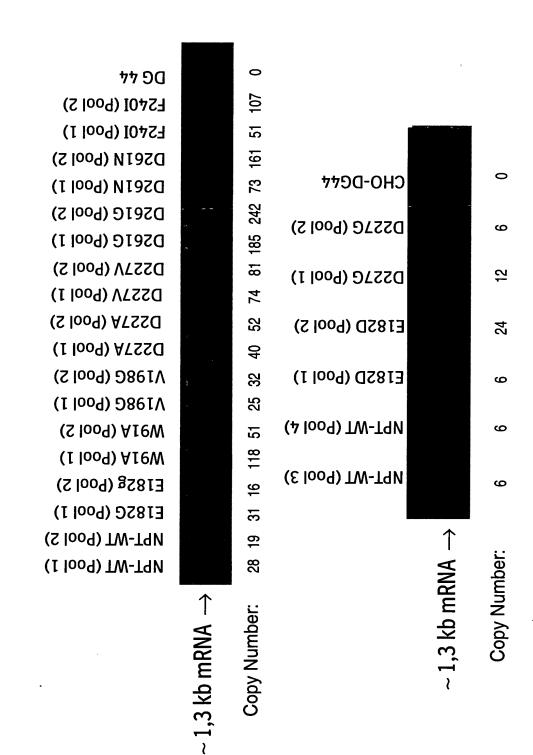
Nitrocellulose

Phosphocellulose

Figure 9B

NPT-Variant	% Enzyme activity (WT-NPT = 100%)
NPT-Wildtype	100.0
Trp91Ala	53.2
Glu182Gly	25.8
Glu182Asp	22.0
Val198Gly	61.9
Asp227Ala	26.9
Asp227Val	16.4
Asp227Gly	30.0
Phe240Ile	23.4
Asp261Gly	3.1
Asp261Asn	1.5

Figure 10



Pool 5 Pool 5 Pool 5 Pool 5 Pool 5 Pool 5 Pool 8 Po Figure 11 12.00 0.00 10.00 8.00 6.00 4.00 2.00 Titre and specific productivity

■ Titer [mg/L] 圖 Spec. Prod. [pg/cell / Tag]

Pool 8 Sort 1 100 nM MTX Pool 8 Sort 1 ■ Titer [mg/L] ■ Spec. Prod. [pg/Cell// Tag] Pool 8 Pool 5 Sort 1 100 nM MTX Pool 5 Sort 1 Pool 5 25.00 20.00 15.00 10.00 5.00 0.00 Titre and specific Productivity

Figure 12

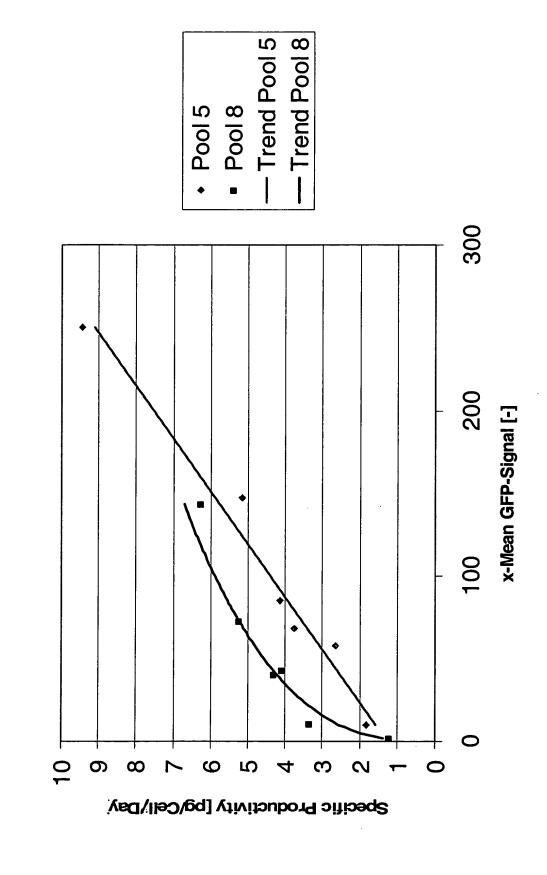


Figure 13